

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

#### **MEMORANDUM:**

To: Jennifer Gaines

From: Dee Colby, Ph.D., Entomologist ( )

Secondary Review: Jennifer Saunders, Ph.D., Senior Biologist

Date: June 25, 2018

Subject: PRODUCT PERFORMANCE DATA EVALUATION RECORD (DER)

#### THIS DER DOES NOT CONTAIN CONFIDENTIAL BUSINESS INFORMATION

**Note:** MRIDs found to be **unacceptable** to support label claims should be removed from the data matrix.

**DP barcode:** 446138/446140 **Decision no.:** 537776/537777 **Submission no:** 1013157/1013176

**Action code:** R310/R310.1

**Product Name:** MGK Formula 2993/MGK Formula 3115 **EPA Reg. No or File Symbol:** 1021-EIEE and 1021-EIEG

Formulation Type: bait

Ingredients statement from the label with PC codes included:

Fipronil (0.1%) PC: 129121

Application rate(s) of product and each active ingredient (lbs. or gallons/1000 square feet or per acre as appropriate; and g/m² or mg/cm² or mg/kg body weight as appropriate. Up to 90 g of bait (0.09 g fipronil) per acre per baiting event (rate for MGK Formula 3115 is scaled to the 0.5 acre). Three to nine grams of bait are placed into each of 8-10 bait stations/acre (4-5 stations for MGK-3115). Bait may be reapplied to emptied stations immediately and/or when checking at 3-4 days later, but no later than 7 days. The total amount of bait in all stations within 1 acre should not exceed 90 g at any one time (45 g bait/0.5 acre for MGK-3115).

Use Patterns: For outdoor use around residential, commercial, agricultural, etc. areas to kill yellowjacket colonies.

- **I. Action Requested:** The registrant requested review of submitted data to support label claims for kills colony, kills queens and controls yellowjackets for MGK Formula 2993 and MGK Formula 3115, which are the same formulation, but marketed to professionals and consumers, respectively. They are also requesting area-wide suppression claims.
- II. Background: The registrant provided data to support product use against yellowjackets and yellowjacket colonies, including queens. The study design for collection of data was based on a protocol review dated March 6, 2017 (DP 437502, Decision no. 524431). Data was submitted and reviewed previously to support product performance for 1021-EINN and 1021-ETOO for MGK Formula 3115, essentially the same product; reviews dated August 23, 2016 (DP 431139 and 431076). Data were determined to be unacceptable to support product performance (MRIDs 49611010, 49611011 and 49611012) mostly due to the lack of product specific testing and

controls. A request to reconsider the classification of those MRIDs follows below (see MRID 50452802) in addition to reviewing new data generated from the reviewed protocol.

#### **III. MRID Summary:**

**MRID 50116801.** Suranyi, R. (2016) Establishing the efficacy of an MGK product to eliminate source nests of nuisance yellowjackets.

This is a protocol that was originally submitted for review as MRID 50166801. The Agency review dated March 6, 2017 (DP 437502, Decision #524431) rated the protocol (MRID 50166801) as acceptable with revisions. MRID 50116801 does not contain any of the recommended revisions. MRID 50116801 is unacceptable.

**MRID 50452801.** Miller, P., B. Peters and R. Suranyi (2017) Efficacy of MGK-2993 in controlling European wasps (German yellowjackets) *Vespula germanica*.

- (1) non-GLP
- (2) **Methods:** Product specific field trials in Canberra, Australia were conducted to demonstrate the efficacy of MGK-2993 bait to control individual nests of German yellowjackets. Due to an abundance of yellowjacket nests, tests were also conducted to demonstrate area-wide suppression of the yellowjacket activity by non-targeted application of MGK-2993.

Objective 1 - Control of individual nests: Thirteen nests were located along the banks of the Molonglo River. Pretreatment assessments of traffic rate were conducted on all nests. Numbers of workers entering and exiting the nest were counted in a 5-minute period. Six colonies that were the furthest apart from each other were selected for bait application to achieve the maximum separation distance between treated nests within the existing distribution of available nest sites. Nests 1, 5 and 7 on the west bank of the river and Nests 10, 12, and 13 on the east side of the river were selected for bait application. The distance between Nest 1 and 5 was ~1,325 ft. Nest 1 and 7 were ~2,052 ft apart and the separation between Nests 5 and 7 was 727 ft. The distance between Nest 10 and 12 was ~745 ft. Between Nest 12 and Nest 13 it was ~2,608 ft and the separation between Nest 10 and 13 was 1,863 ft. Four additional nests, located 2,400 ft - 8.5 miles from the treated nests, served as untreated controls. Bait was dispensed in 8 stations (4 oz pill bottles with three 0.5-inch holes drilled around the circumference of the bottle) per acre. The threshold for rebaiting was set at the removal of approximately 75% of the initial bait amount per station. The threshold for the first rebaiting event was reached within 60 minutes of initial bait application; 6 g of additional bait was introduced into each station that reached the rebaiting threshold. A maximum of ~72 g of bait (8 stations, 9 grams of bait per station) would have been available to each of the targeted nests if all stations were rebaited. The actual bait amount applied was somewhat less because not all bait stations were rebaited (mean amount of bait applied per nest = 67.6 g). The Reviewer calculates a total of  $\sim 54$  g bait per acre for areas associated with targeted nests (i.e., 72 g bait divided by a mean treatment area per nest of 1.33 acres). [Note: The labeled rate is up to 90 g bait per acre and to re-bait the area immediately if an unspecified amount of bait has been removed and rebait at day 3-7 if bait has been depleted.] Consumption of bait was recorded at 2 and 4 DAT. Separate stations, with screens to prevent yellowjacket access, were used to monitor water loss from the bait. Daily traffic rate assessments were conducted for the 13 nests for 7 DAT. At 7 DAT, the entrances of each nest targeted with bait applications were marked and secured with heavy duty wire mesh to prevent animals from destroying defenseless colonies. To provide a sufficiently robust dataset for the probability of rebound, baited nests were monitored for an additional 4 weeks before nest excavation. Additional traffic rate assessments were made on 9, 16, 23, and 32-days post treatment. Traffic rate assessments were carried out between late morning and early afternoon, i.e., during peak foraging activity of European wasp colonies. Pre-treatment nest traffic was compared with post-treatment nest traffic using paired-samples t-test (Statistix 9, Tallahassee, FL). All nests targeted with bait application continued to be monitored to detect any rebound of foraging activity and resulting renewal of stinging threat to the public by newly emerging workers.

<u>Objective 2 - Area-wide suppression:</u> Seven German yellowjacket nests were available to quantify the impact of a bating program on other "unknown" nests within the general area of bait application simulating an application aimed at area-wide suppression of yellowjacket activity. In the case of this study, the known locations of these seven nests

allowed the close monitoring of nest traffic at each nest site without the use of monitoring traps. Four of the nests (Nests 2, 3, 4, and 6) used in the area-wide suppression study were located on the west side of the Molonglo River along an approximately 2,052 ft transect of the riverbank and the remaining three nests (Nests 8, 9, and 11) were located on the east side of the Molonglo River along an approximately 2, 608 ft transect of riverbank. The average overall area of treatment from Objective 1 was estimated 17.2 acres (west bank) and 23.9 acres (east bank). The total amount of bait applied on the west bank was 200 g leading to an area-wide application rate of 11.6 g of bait per acre. The total amount of bait applied targeting nests on the east bank was 205.8 g leading to an area-wide application rate of 8.61 g of bait per acre.

#### (3) **Results:**

Objective 1 - Control of individual nests: All pretreatment assessments of nests met an acceptable minimum traffic rate of  $\geq 10$  foragers per minute (Table 1).

Table 1. Pretreatment nest traffic rates per minute (i.e., mean number of workers/minute at nest entrance).

Nest ID	Mean	SD
1 targeted	31.2	3.8
2 non-targeted	110.8	20.7
3 non-targeted	95.4	21.6
4 non-targeted	121.6	15.2
5 targeted	87.6	25.9
6 non-targeted	133.2	23.7
7 targeted	72.4	12.7
8 non-targeted	127.8	16.7
9 non-targeted	97.0	28.9
10 targeted	121.8	12.2
11 non-targeted	233.4	40.4
12 targeted	43.8	9.9
13 targeted	122.6	16.0
C1	103.1	20.8
C2	44.5	15.1
C3	55.9	10.0
C4	53.0	6.8

Overall, prevailing weather conditions were favorable during the study; no critical adverse weather event was encountered during the study.

All untreated control nests remained active during the 32-day post-baiting data collection period (Table 2, examples). Traffic rate of untreated control nests during the first 4-days of post-baiting (when  $\sim 100\%$  reduction of traffic rate was observed in treated nests) was not significantly different from pre-treatment traffic rates (t(2) = -4.81, P = 0.0406; t(2) = -3.99, P = 0.0576; t(2) = -2.64, P = 0.1185; and t(2) = 0.40, P = 0.7309, at 1, 2, 3 and 4 DAT, respectively). In general, traffic rates in the untreated control nests correlated with weather conditions and followed the general autumn phenology of European wasp colonies.

Table 2. Examples of mean post treatment nest traffic rates per minute for control nests.

Nest ID	3 DAT	9 DAT	16 DAT	23 DAT	32 DAT
C1	189.2	108.2	98.2	62.4	48.0
C2	79.4	97.8	83.6	61.2	29.8
C3	82.4	65.8	72.8	Nest destroyed	Nest destroyed
C4	No data	63.0	60.2	45.4	42.2

The total amount of bait applied per nest ranged from 60.6 g - 72.7 g (Mean 67.6, 5.9 SD). The mean percent of bait removed, adjusted for 25.5% dehydration, was 69.2% (12.1 SD). Not all bait stations experienced similar level of foraging pressure. Based upon the observations in this study, the most effective time for the re-positioning of bait

stations is within a few hours after foraging activity is confirmed at one or more bait stations. At 1 DAT, average traffic rate of the targeted nests was reduced from pretreatment counts by 92.7% across the 6 nests targeted (t(5) = 5.77, P = 0.0022). Nest traffic rate continued to decline post-baiting (97.1%, t(5) = 5.74, t(5

Nests (n=6) directly targeted with bait applications were excavated after a 4-week observation period aimed at assessing a potential for a rebound of nest activity. All excavated nests contained large numbers of dead larvae and adults from all castes, and none had any live reproductives. Only 28 live workers were found (3, 0, 17, 8, 0; Nests 5, 7, 10, 12, and 13, respectively), all of which appeared to be affected by a likely combination of residual exposure to fipronil, lack of nourishment and the high disease burden associated with the advanced state of decomposition of these nests. No defense reaction was encountered at any of the nests during the excavation. In addition, the entrances of all nests were collapsed and overgrown with vegetation. In general, all nests (envelope and combs) showed significant decay upon excavation.

Objective 2 - Area-wide suppression: All pretreatment assessments of nests met an acceptable minimum traffic rate of  $\geq 10$  foragers per minute, with mean traffic rates ranging from 87.2 - 212.5.

At 1 DAT (Objective 1), the average traffic rate was reduced from the pretreatment level by 96.6% across the 7 untargeted nests (t(6) = 7.82, P = 0.0022). Nest traffic rate continued to decline (99.0%, t(6) = 7.73, P = 0.0022; 99.6%, t(6) = 7.81, P = 0.0022; and 99.7% t(6) = 7.75, P = 0.0022; at 2, 3 and 4 DAT, respectively), reaching  $\geq$  99.9% by 6 DAT through 32 DAT. By 9 DAT all non-targeted nests had 0 traffic for two consecutive assessments. Nest 11 had 1-2 foragers present at 16 and 23 DAT. None were present by 32 DAT.

One of the nests (Nest 8) was excavated on 4 DAT to assess the short-term impact of bait application on colony health. The remaining non-targeted nests were observed until 32 DAT to assess potential nest recovery. Only a single forager was noted to exit the nest during the 5-min nest traffic assessment on 4 DAT. This forager was visibly intoxicated and unable to engage in a normal flight path. The nest was approximately the size of a basketball and contained many capped cells (both worker and queen). In addition, a significant number of live but intoxicated males and a few workers were found inside the nest along with large masses of dead larvae and workers. Healthy looking combs containing capped queen cells were retrieved and brought back for further observations. None of the retrieved capped cells hatched in 3 months of monitoring.

(4) **Conclusion:** This MRID is **acceptable** to support colony kill claims for yellowjackets, *Vespula* spp., including queens, when treated with 24-90 g of MGK-2993/3115 bait per acre over a 4-day period. [Note: Total average to kill colonies in this study was ~54 g.] Even though all targeted nests had 0 traffic for two consecutive assessments by 9 DAT, verification of colony kill by nest excavation (as per protocol review dated March 6, 2017; DP 437502, Decision #524431) did not occur until after the 32 DAT assessment. Therefore, specific claims for speed of kill for colonies is 30 days/4 weeks post baiting. Bait stations need to have holes at least 0.5 inch in diameter for access by *Vespula* spp. foragers when carrying bait out of the station and should be specified on the label if the station is sold separately from the bait. Re-baiting/re-application thresholds per each station are: 1) within 30-60 minutes, if > 75% of the bait is removed from a station, refill the station with at least 6 g of bait, and 2) at 3-4 days after bait placement. Stations that do not experience foraging activity 3-24 hr after placement should be repositioned to locations where activity is confirmed at one or more bait stations.

The term "area-wide" cannot be defined by this study. The 24 bait stations used to treat the three nests along the west bank transect ( $\sim 2,052$  ft) and the 24 bait stations used to treat the three nests along the east bank transect ( $\sim 2,608$  ft) provided a significant reduction in foragers at nest entrances, 99-99.9%, at the 7 non-targeted nests within those transects from 1 DAT-32 DAT. The rate of decline in nest traffic at non-targeted nests mirrored that of the targeted nests. The Reviewer calculated that non-targeted colony #3 was the furthest colony from a bait station. The closest bait station (# F5A) to that colony was  $\sim 352$  ft. away. Colony #3 did have access to at least 16 bait stations from targeted colonies #1 (72.7 grams bait, total) and #5 (66.7 grams bait, total) on either side. Therefore,

the exact distance and number of bait stations needed to support colony kill claims for "nearby" nests or non-targeted nests is not known. However, the Reviewer believes that based on listed distances between targeted and non-targeted nests, the data are acceptable to support label claims for colony kill/control for non-targeted/unseen nests within a quarter acre of the stations. Data also support claims for reducing the local population of yellowjacket foragers when nest locations are not known.

The Agency review of protocol (MRID 50166801) rated the protocol as acceptable with revisions (see protocol review dated March 6, 2017; DP 437502, Decision #524431). The review stated that the amended protocol must be included in any submission for a registration where a study utilized the protocol. An un-amended version was submitted with this data package as MRID 50116801. Also, deviations from the protocol should have been documented. However, the Reviewer is very satisfied with how well the study was conducted and documented in this MRID. Deviations from the protocol (e.g., no use of fluorescent dye) did not appear to affect the outcomes.

**MRID 50452803.** Lennan, T.A. (2017) Composition of efficacy test material and test material for non-target organisms: EPA Reg. No. 1021-Unassigned.

This MRID provides the compositions of different test-bait matrices: X-6921-12, X-7145-13, X-7159-13, X-7160-13, x-7460-14, and X7461-14. [Note – the source of fipronil (i.e., technical or Termidor SC formulated product) is not included.] MRID 50452803 is classified as **supplemental**.

MRID 50452802. Suranyi, R. (2017) Proposal for reconsideration of previously rejected efficacy studies for MGK 2993.

This MRID is a request to have MRIDs 49611010, 49611011 and 49611012 reviewed again considering the protocol review dated March 6, 2017 (DP 437502, Decision no. 524431). These MRIDs were reviewed previously in efficacy review dated August 23, 2016 (DP 431139, Decision 510935).

- (4) Conclusion MRID 49611010 was previously classified as unacceptable due to: 1) testing was not product specific, 2) controls were not used, and 3) replication was too low. The classification of this MRID remains as **unacceptable** to support colony kill claims for yellowjackets, *Vespula* spp., when treated with MGK-2993 bait for the following reasons:
  - 1) The Reviewer agrees with the previous review in that testing was not product specific and may not be similar enough based on the information provided to be considered substantially similar and certainly not the same. For example, the bait matrix X-6921-12 used in this study was mixed with Termidor SC (EPA Reg. No. 7969-210), a formulated product, for the fipronil component of the tested bait in this study and not a technical source of fipronil. [Composition of X-6921-12 is provided in MRID 50452803.] A formulated product, such as Termidor SC, contains inert ingredients which may or may not be used in the MGK-2993/3115 bait.
  - 2) While control colonies are not required for testing in the approved protocol (dated March 6, 2017; DP 437502; Decision 524431), they are encouraged, and in this study, may have indicated the relationship between draught and colony size/dynamics during the study.
  - 3) The study looked at two rates of fipronil (0.05% and 0.10%) across 7 nest sites. Typically, for other insecticides, product efficacy at lower dose rates may be bridged to higher rates; however, research has shown that higher percentages of fipronil can be a deterrent to yellowjackets and/or kill foragers too quickly. While data from product specific studies (MRID 50452801) have shown that MGK-2993 does not deter foraging on the bait at 0.10%, data is not bridgeable from either of the tested rates (0.05% and 0.10%) in this MRID due to a lack of product specificity.

In addition, trapping of foragers with heptyl butyrate at study sites to assess treatment effect is known to reduce numbers of foragers, which is why this sampling technique is typically discouraged. In fact, two of the sites treated with 0.10% fipronil (Silva and Wildwood) had relatively large numbers of foragers trapped in relation to the estimated sizes of the colonies. [Note: Heptyl butyrate sampling is not in the approved

#### protocol.]

- **(4) Conclusion MRID 49611011** was previously classified as unacceptable due to: 1) testing was not product specific, and 2) the amount of bait tested per dish exceeded the label rate. The classification of this MRID has been revised to **acceptable** to show that MGK-2993/3115 kills yellowjacket foragers, *Vespula* spp., by 24 hr after a 1-minute contact exposure for the following reasons:
  - 1) The objective of this laboratory study was to show the effect of a 1-minute contact exposure to the bait by yellowjacket foragers (Eastern and German yellowjackets) to support efficacy claims for kill of individuals. Therefore, because this study does not rely on the palatability of the bait for efficacy, the Reviewer's opinion is that X-6921-12 plus 0.1% fipronil is similar enough to MGK-2993/3115 for this tarsal-only contact study.
  - 2) The 9 g of bait used in the tests is now equivalent to the maximum label rate per bait station. The 1-minute exposure period is approximately the amount of time that foragers would manipulate the bait to gather a portion for carrying back to the nest. By 4 hr post treatment 82% of individuals exposed to toxic bait (n = 50) were knocked down and by 24 hr post treatment, 100% mortality was observed (0% knockdown or mortality in controls). The time to knockdown and subsequent mortality allows foragers time to return to the nest with the toxic bait. Products that effect foragers more quickly may prevent a colony from receiving a lethal dose of toxic bait from its foragers.
- **(4) Conclusion MRID 49611012** was previously classified as unacceptable due to 1) control sites not being monitored before the study, and 2) testing was not product specific. The classification of this MRID remains as **unacceptable** to support colony kill claims for yellowjackets, *Vespula* spp., when treated with MGK-2993/3115 bait for the following reasons:
  - 1) While control colonies are not required for testing in the approved protocol (dated March 6, 2017; DP 437502; Decision 524431), they are encouraged. In this study, investigators chose to add "naïve" untreated control sites after the study began because of concerns that the method of assessing product performance via lure-traps at treatment sites might be reducing the number of foragers in addition to the treatment. This Reviewer is more concerned with the trapping of foragers using heptyl butyrate at study sites to assess treatment effect than a lack of control sites to confirm colony health during the study. Investigators reported a 49.2-69.5% reduction in forager numbers from trapping conducted at the "naïve" untreated control sites. Declines in forager numbers due to pretreatment trapping on treated sites ranged from 2.5-49%. Heptyl butyrate sampling is not in the approved protocol for that reason, and instead is replaced by nest entrance "traffic" counts to monitor forager activity (see approved protocol dated March 6, 2017; DP 437502; Decision 524431).
  - 2) Testing was not product specific. Bait matrix X-7145-13 was mixed with Termidor SC (EPA Reg. No. 7969-210) formulated product for the fipronil component of the tested bait and not a technical source of fipronil; therefore, the inert ingredient/formulation composition between the two baits may not be the same. [Composition of X-7145-13 is provided in MRID 50452803.] Based on the information provided, the Reviewer does not consider the tested bait to be similar enough the proposed product for bridging of data.
- (5) Overall Conclusion: This MRID is supplemental. MRID 49611011 supports claims that MGK-2993/3115 kills yellowjacket foragers, *Vespula* spp., by 24 hr after a 1-minute contact exposure. MRID 49611010 and MRID 49611012 do not support colony kill claims for MGK-2993/3115 due to: 1) the tested bait not being product specific or similar enough, in the Reviewer's opinion, to justify bridging the data, and 2) heptyl butyrate sampling was conducted during the study, which itself reduces the number of foragers from treated nests. Heptyl butyrate collecting of foragers is not included in the approved protocol (see approved protocol dated March 6, 2017; DP 437502; Decision 524431).

#### IV. EXECUTIVE DATA SUMMARY:

(A) The submitted data support product performance of MGK Formula 2993/3115 for general kill claims for

yellowjackets, *Vespula* spp., and yellowjacket colonies including queens when treated with 24-90g of bait per acre over a 4-day period. [Note: Total average to kill colonies in this study was ~54 g.] Also, MGK Formula 2993/3115 kills yellowjacket foragers, by 24 hr after a 1-minute contact exposure. Colony kill claims are supported at 30 days/1 month based on when nest excavations occurred. Bait stations need to have holes at least 0.5 inch in diameter (per MRID 50452801) for access by *Vespula* spp. foragers when carrying bait out of the station and should be specified on the label if the station is sold separately from the bait. Re-baiting/re-application thresholds per each station are: 1) within 30-60 minutes, if > 75% of the bait is removed from a station, refill the station with at least 6 g of bait, and 2) at 3 to 4 days after bait placement. Stations that do not experience foraging activity 3-24 hr after placement should be repositioned to locations where activity is confirmed at one or more bait stations.

The term "area-wide" cannot be defined by this study. A significant reduction in forager activity (99-99.9%) at nest entrances of non-targeted nests (n = 7) was observed from 1 DAT through 32 DAT. The rate of decline in nest traffic at non-targeted nests mirrored that of the targeted nests. Though the nests were not directly targeted, the  $\sim 2,000$ -2,600 ft tracts of land where the nests were located had 24 bait stations in each tract that were used to treat targeted nests (n = 6). The Reviewer calculated that non-targeted colony #3 was the furthest colony from a bait station. The closest bait station (# F5A) to that colony was  $\sim 352$  ft. away. Because colony #3 did have access to at least 16 bait stations from targeted colonies #1 and #5, the exact distance and number of bait stations needed to support colony kill claims for "nearby" non-targeted nests is not known. However, the Reviewer believes that based on listed distances between targeted and non-targeted nests, the data are acceptable to support label claims for colony kill/control for non-targeted/unseen nests within a quarter acre of the stations. Data also support claims for reducing the local population of yellowjacket foragers when nest locations are not known.

Species claims for *Vespula germanica* are supported, but the data do not support species-specific claims for other species. Acceptable data for colony kill claims should be submitted to support each species of yellowjacket for which species-specific label claims are desired.

#### V. LABEL RECOMMENDATIONS:

- 1) List changes to the directions for use: Specific changes are indicated on the proposed product labels (attached), and include positioning the bait stations at least 4 feet off the ground.
- (2) The following marketing claims are acceptable: Specific claims are included on the proposed product labels (attached), and include, in part:

Kills [controls] yellowjackets

Kills [controls] yellowjacket nests [colonies]

Kills the queen

Kills hidden [unseen] yellowjacket nests [colonies]

Collapses the entire yellowjacket nest structure

Specific kills/controls claims for the German yellowjacket, Vespula germanica

(3) The following marketing claims are unacceptable: Specific claims that are unacceptable have been indicated on the proposed product labels (attached), and include, in part:

Speed of kill claims for the nest [colony] any sooner than 30 days/4 weeks (e.g., quickly or 2-3 days)

Kills queens in early season to help prevent colony establishment

Claims for specific species of vellowiackets other than the German vellowiacket

Claims for colony collapse

(4) The following MRIDs should be removed from the data matrix, as they are classified as "unacceptable" to support the product: 49611010, 49611012, and 50116801

# MGK® Formula 3115

ACTIVE INGREDIENT:	
Fipronil	0.10%
OTHER INGREDIENTS	99.9%
	100 00%

# KEEP OUT OF REACH OF CHILDREN

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

Manufactured for:



EPA Reg. No. 1021-UNASSIGNED

EPA Est. No. 1021-MN-2

Net Contents: x Ounces

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and wildlife. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not apply this product around electrical equipment due to the possibility of shock hazard.

[MGK® (Brand name) Yellowjacket (Yellow Jacket) Bait Station contains [an ingredient] /[Fipronil] that kills yellowjackets (yellow jackets) continuously / nonstop. MGK® (Brand name) Yellowjacket (Yellow Jacket) Bait is so advanced that it is attractive to all [pestiferous] species of yellowjackets (yellow jackets) and kills the complete /entire colony /nest/hive [including queens]. [MGK® (Brand name) Yellowjacket (Yellow Jacket) Bait] may be placed outdoors where you have seen yellowjackets (yellow jackets) [foraging within the area of interest]. MGK® (Brand name) Yellowjacket (Yellow Jacket) Bait is guaranteed to work even for severe [high activity] yellowjacket (yellow jacket) situations.]

# READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

DIRECTIONS FOR USE					
It is a violation o	It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.  READ ENTIRE LABEL BEFORE USE				
Insects Killed/Controlled	Yellowjackets (Yellow Jackets) such as German yellowjacket (European wasp), common yellowjacket, Western yellowjacket, Eastern yellowjacket, hybrid yellowjacket, Southern yellowjacket, California yellowjacket, prairie yellowjacket, downy yellowjacket, [and may also be called Texas yellowjacket, ground wasp and meat bee.] [SEE INSECT IDENTIFICATION SECTION]				
Where to Use/Apply	For Outdoor Use around areas such as [homes, decks, patios, yards, outdoor living/play areas, outdoor kitchens, condos, town/twin homes, pool houses, garages, sheds, barns, cabins, campers, tents, garbage cans/bins].  [This product is for use as an outdoor treatment for control / prevention of yellowjackets (yellow jackets) only for areas listed previously on the label.]  [MGK® (Brand name) Yellowjacket (Yellow Jacket) Bait is for use in controlling yellowjackets (yellow jackets) outdoors, especially when the hive location is unknown or inaccessible.]				
Use Restrictions	Do not apply outside of bait station.  Do not place the bait station within reach of small children or pets.  Do not apply during prolonged cold daytime temperatures (<50° F) or when the expected daytime air temperature is very high (>90° F).  Do not spray or add any other insecticides to the bait or station.  Do not place bait station within 20 feet of a nest.  Do not make applications immediately before, during or immediately after rainfall.  Apply no more than 45 grams of bait per half acre at any one time.				
[Before You Use/Apply]	Identify the insect that you are encountering. See (below) (insert) (side panel) (back panel) (hanger) for details on Insect Identification.  A separate insecticide spray can be used directly on hives/nests that are found. Do not spray or add any other insecticides to the bait or station. Always follow the label directions of any other insecticide being used.				
How to Use/Apply	Apply 3-9 grams of bait per station. A 30 gram (syringe) (applicator) (application) (tube) covers (1/3) (a third) of an acre.  [Apply no more than 45 total grams of bait per half-acre of control.]  For best results use more stations [up to 5 per half-acre] with a smaller amount of bait in each station.  [SEE HOW TO USE (HOW TO APPLY TO STATION) ATTACHED.]  [SEE APPLICATION RATE TABLE]				

	When to Use/Apply	Treat when yellowjackets (yellow jackets) are actively foraging. For best results, apply product in the morning during sunny, warm conditions.  Reapply bait when the bait is completely removed or after 3-4 days if yellowjacket (yellow jacket) problem persists.
spaced at a rate of (4) (5) (4-5) stations per half acre depending on the yellowjacket (yellow jacket) population. Apply 3-9 grams of bait per station.  [See figure 1 below] [Use 4 (four) stations to cover a localized area as large as .5 (half) acre (21,780 square feet.)]  Place station where small children and pets cannot reach it.  [Foraging areas include around trees, shrubs and flowering plants as well as food areas like picnic/patio tables, decks, garbage areas, etc. Air conditioner unit(s) and irrigation water may pool, which can attract foraging yellowjackets (yellow jackets).]  Station Placement [Outdoors]  Station Placement [Outdoors]  Bait stations can be placed near plants/trees that experience pest outbreaks, such as aphids. Signs of aphid infestations are the presence of honeydew on the foliage (transparent sticky coating of the leaves), increased ant and lady beetle activity on and in the vicinity of the infested plants.]  [Place bait station on a string/wire by attaching the string/wire to tree limbs, fence posts, etc., in a grid-like pattern that covers the desired protection zone. At minimum, place bait station(s) on the property barrier e.g., fence line.]  Monitor bait stations for yellowjacket (yellow jacket) activity after 2-4 hour of deployment. Not all bait stations will be found or used equally by yellowjackets (yellow jackets). If the bait has been removed and there is still yellowjacket (yellow jacket) activity, reapply more bait to station as long as no more than 45 grams of bait per half acre are present at one time. If no activity has been observed at the station within the first 24-hours, move bait station(s) to new location(s).		Apply bait to station and place stations in a grid pattern approximately 70 feet apart in areas where ongoing yellowjacket (yellow jacket) activity or foraging is observed. [Foraging is generally characterized by yellowjackets (yellow jackets) approaching, landing, and walking on surfaces in search of food.] For best results, stations should be uniformly spaced at a rate of (4) (5) (4-5) stations per half acre depending on the yellowjacket (yellow jacket) population. Apply 3-9 grams of bait per station.  [See figure 1 below] [Use 4 (four) stations to cover a localized area as large as .5 (half) acre (21,780 square feet.)]  Place station where small children and pets cannot reach it.  [Foraging areas include around trees, shrubs and flowering plants as well as food areas like picnic/patio tables, decks, garbage areas, etc. Air conditioner unit(s) and irrigation water may pool, which can attract foraging yellowjackets (yellow jackets).]  [Bait stations can be placed near plants/trees that experience pest outbreaks, such as aphids. Signs of aphid infestations are the presence of honeydew on the foliage (transparent sticky coating of the leaves), increased ant and lady beetle activity on and in the vicinity of the infested plants.]  [Place bait station on a string/wire by attaching the string/wire to tree limbs, fence posts, etc., in a grid-like pattern that covers the desired protection zone. At minimum, place bait station(s) on the property barrier, e.g., fence line.]  Monitor bait stations for yellowjacket (yellow jacket) activity after 2-4 hours of deployment. Not all bait stations will be found or used equally by yellowjackets (yellow jackets). If the bait has been removed and there is still yellowjacket (yellow jackets) activity has been observed at the station within the first 24-hours, move bait station(s) to new location(s).  [Reapply bait into the station at the time of relocation. There is no need to remove the remaining bait from the initial bait application.]

	insecticide labeled for yellowjackets (yellow jackets) can be used on the nest in addition to the station placement, but do not spray around the bait stations. Always follow the directions on the spray insecticide. If foraging activity is occurring near the hive it may indicate multiple hives in the area.]
	Place the closest bait stations at least 20 feet away from the nest. [If possible, observe the flight path of yellowjackets (yellow jackets) exiting the nest and place bait stations within an area where workers of the targeted nest are actively foraging.]
	[Note that activity observed in the bait station(s) may not be yellowjackets (yellow jackets) from the targeted nest. Therefore, monitor traffic rate (entry/exit) of yellowjackets (yellow jackets) from the targeted nest. If the targeted nest remains active, it may be necessary to reposition bait stations and/or broaden bait station deployment.]
	Allow 2-3 days for the hive to be killed. [See Figure 1 for further help.]
[How It Works]	[Foraging yellowjackets (yellow jackets) will take the bait from the station back to the hive and it will be spread through the colony, killing the entire hive, including the queen, within 2-3 days. Once the bait station is discovered, yellowjackets (yellow jackets) will recruit nest mates to the bait station ensuring sufficient bait transfer to the nest. Allow 2-3 days for the hive to be killed.]
	[The bait is not attractive to honey bees and other pollinators.]

# Option 1 for Insect/Nest Identification [INSECT IDENTIFICATION

[This product is for use as an outdoor treatment for control / prevention of yellowjackets (yellow jackets) [vespula spp.] only]

Paper Wasps, Bald-faced Hornets and Mud Daubers will not feed on this bait - do not use this product for these insects. It is important that you identify the pest before treating.

Tips to determine the identity of the insect that you are encountering without seeing a nest:

- 1. Yellowjackets (Yellow Jackets) have a bright yellow and black color pattern.
- 2. Yellowjackets (Yellow Jackets) have a sleek, shiny, virtually hairless body compared with the furry amber or brownish body of honey bees and bumble bees.
- 3. Yellowjackets (Yellow Jackets) have a thinner and defined waist in contrast to most bees
- Yellowjackets (Yellow Jackets) have shorter bodies and legs than paper wasps. If you
  observe long legs dangling from the yellow and black patterned insect while flying, it is
  likely a paper wasp.
- 5. Yellowjackets (Yellow Jackets) are roughly ½ inch in length while paper wasps and hornets are larger, ranging from ¾ inch to 2 inches.
- 6. Mud daubers are long slender solitary wasps (they do not form colonies) with blackish brown or metallic coloring. ]

[Insert pictures of insects with appropriate naming]

### [NEST IDENTIFICATION

Tips to determine the identity of the insect that you are encountering if you locate the nest:

- 1. Yellowjackets (Yellow Jackets) often nest underground or inside structures (in attics, between walls, soffits etc.). Yellowjacket (Yellow jacket) nests are globular or oval paper envelope enclosing multiple combs.
- 2. Paper wasp nests tend to be smaller, paper-like with a single exposed honeycomb suspended on a narrow stalk, often located under eaves and other structures. They are frequently found in hollow structures, such as fence post, lawn structures, etc.
- 3. Hornet nests are usually oval structures surrounded by multiple sheets of gray paper. They are often built in tree canopies and can be the size of a basketball.
- 4. Mud daubers may build multiple nests of mud in a small area creating the illusion of a large colony.]

[Insert pictures of nests with appropriate identification]

# Option 2 for Insect/Nest Identification

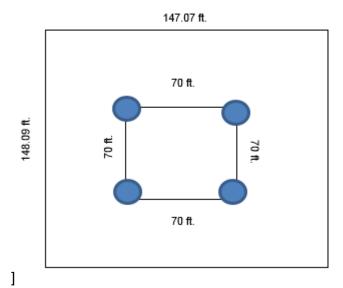
[Insect and Nest Identification

NOTE: These are general characteristics that may not pertain to every subspecies of each insect.

	<u>Yellowjacket</u>	<u>HoneyBee</u>	Bumble Bee	Paper Wasp	<u>Hornet</u>	Mud Dauber
	[Insert Picture]	[Insert Picture]	[Insert Picture]	[Insert Picture]	[Insert Picture]	[Insert Picture]
Color	Bright yellow & black striped	Amber or brownish color	Yellow & black	Bright yellow & black striped	Yellow & black or white & black pattern	Yellow & black
Body	Sleek hairless body	Furry	Fat & furry	Sleek hairless body	Skinny needle like waist	Needle thin waist
Size	1/2"	½" to ¾"	1" to 1½"	³⁄₄'" to 2"	Up to 2"	Up to 1"
Features	Very narrow waist; meat eaters	Wider waist than yellowjacket; yellow sacks of pollen on their back legs	Mostly yellow abdomen	Very narrow waist; Long dangling legs in flight	Overall thicker than yellowjacket	Yellow & black legs, curved antennae
Nest	Underground or inside structures [Insert Picture]	Wax-like [Insert Picture]	Beeswax hive in the ground [Insert Picture]	Small, paper- like with single exposed honeycomb in eaves [Insert Picture]	Oval structure surrounded by sheets of gray paper [Insert Picture]	Multiple small nests of mud in a small area [Insert Picture]

# [Figure 1: Station Placement for General Area Control

# 4 Station Placement for Half Acre



[Other Illustration]

[Total coverage area is .5 acres (half an acre) (21,780 sq. ft.)] [Place four stations roughly 70 feet from one another.]

[For severe yellowjacket (yellow jacket) problems a fifth station should be placed in the middle.]

[For best results, use even more stations with less bait in each station. Do not use more than 45 grams of bait in a half-acre area.]

# Optional table for recommended application rate per station

# [Application Rate Table

#### **Maximum Grams of Bait per Station**

#### Area

	Square Feet (Acres)	4,356 (0.1) (1/10)	10,890 (0.25) (1/4)	14,519 (0.33) (1/3)	21,780 (0.5) (1/2)	29,040 (0.67) (2/3)	32,670 (0.75) (3/4)	43,560 (1)
	1	9	9	9	9	9	9	9
	2	4.5	9	9	9	9	9	9
	3	3	7.1	9	9	9	9	9
Stations	4		-	7.5	9	9	9	9
	5		ı	ı	9	9	9	9
	6		-	•	7.5	9	9	9
	7		-	-	-	8.5	9	9
	8		ı	ı	ı	7.5	8.4	9
	9		=	-	=	-	7.5	9
	10		-	-	-	-	-	9

[Each gram of bait is roughly 1/5 of a teaspoon.]

### **Bait Station Directions**

Stations should have opening from 16.5mm by 16.5mm to 24mm x 24mm This allows adequate room for yellowjacket entry and exit while not allowing non-target access.

[HOW TO USE (HOW TO APPLY TO STATION:] [icon/graphic]

# Option 1 - for Nonspecific bait station

- 1) Hold with applicator/tube/syringe aimed away from you.
- 2) Apply 3-9 grams (3/5-1 4/5 teaspoon) of bait onto [inside wall or bottom of station]/[bait platform]. [graphic or illustration]
- 3) Close station
- 4) Carefully place station(s) where children and pets cannot easily access]
- 5) When yellowjackets are no longer present in treatment area, remove stations.

#### End of Option 1



### Option 2:

### **Orange Clamshell Station**

Prepare the station for placement as follows:

[Other Illustration]

- 1) Remove station from packaging and unfold/open it up. [Other Illustration]
- 2) Apply 3-9 grams (3/5-1 4/5 teaspoon) of bait onto inside wall or bottom of station. [graphic or illustration]

[Other Illustration]



- 3) Snap station closed on top.
- 4) If the station will be hung to or attached to an object, use an S-hook hanger/string/wire or double-sided adhesive pad.
- 5) When yellowjackets are no longer present in treatment area, remove stations.

#### End of option 2

### Option 3 – for application using pill bottles or like bait station

Prepare the station for placement as follows:



- 1) Push down on cover and twist counter clockwise to open. [Other graphic/illustration]
- 2) Apply 3-9 grams (3/5-1 4/5 teaspoon) of bait onto inside wall of station [Graphic/illustration]
- 3) Replace cover and turn clockwise to close. [Graphic/illustration]
- 4) If the station will be hung to or attached to an object, use the string/wire or double-sided adhesive pad. [Graphic/illustration]
- 5) When yellowjackets are no longer present in treatment area, remove stations.

#### End of Option 3

#### Option 4:

# **Easy Grip Station**

Prepare the station for placement as follows:

- 1) Remove station from package
- 2) Open station by squeezing rear handles together.
- 3) While maintaining pressure to keep station open, apply 3-9 grams (3/5-1 4/5 teaspoon) of bait to inside wall of station. [Graphic/illustration]
- 4) If the station will be hung to or attached to an object, use the hanger provided. [Graphic/illustration]
- 5) When yellowjackets are no longer present in treatment area, remove stations.



# End of option 4

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

#### **PESTICIDE STORGE:**

Store in a cool, dry place. Always store pesticides in the original container. Store away from food and pet food.

#### PESTICIDE DISPOSAL AND CONTAINER HANDLING:

Nonrefillable container. Do not reuse or refill this container.

If empty:

Place in trash or offer for recycling if available.

If partly filled:

Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

#### **OPTIONAL WARRANTY STATEMENTS:**

**NOTICE:** To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with directions.

[IMPORTANT: Read the entire Directions for Use, Conditions of Sale and Disclaimer of Warranties and Limitations of Liability before using this product.

**CONDITIONS OF SALE:** The directions for use of this product have been determined to be appropriate for the correct use of this product. This product has been tested under different environmental conditions similar to those that are ordinary and customary where the product is to be used. Insufficient control of pests or plant injury may result from the occurrence of extraordinary or unusual conditions, or from failure to follow label directions. In addition, failure to follow label directions may cause injury to animals, man and damage to the environment. Manufacturer and Seller offer, and the buyer accepts and uses, this product subject to the conditions that extraordinary or unusual environmental conditions, or failure to follow label directions are beyond the control of Manufacturer and Seller and are, therefore, the respons bility of the buyer.

#### LIMITED WARRANTY AND LIMITATION OF DAMAGES

Manufacturer and Seller warrant that this material conforms to the chemical description on the label. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER AND SELLER MAKE NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY, and no agent of Manufacturer or Seller is authorized to do so except in writing with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values, etc.]

OPTIONAL MARKETING CLAIMS
Note to PM: When qualified claims are
used on the market label, the qualifying
statement will appear in close proximity
to the claim when it does not impact any
mandatory language.

## **Efficacy Claims**

Kills Yellowjackets (Yellow Jackets) /Vespula Spp.

Kills multiple species of Yellowjackets (Yellow Jackets)

Effective against Yellowjackets (Yellow Jackets) /Vespula Spp.

Effective [localized] area-wide control of Yellowjackets (Yellow Jackets)

#### **Nest Claims**

Kills Yellowjacket (Yellow Jacket) /Vespula Spp. nests/hives/colonies

Kills Yellowjacket (Yellow Jacket) /Vespula

Spp. nests/Hives/Colonies in structures

Kills Yellowjacket (Yellow Jacket) /Vespula

Spp. nests (Hives/Colonies) [in the ground]

Kills Yellowjacket (Yellow Jacket) /Vespula

Spp. Nests (Hives/Colonies) within a quarter acre [area] of the station

Kills Yellowjacket (Yellow Jacket) /Vespula Spp. Nests (Hives/Colonies) in 2-3 days

Targeted control of Yellowjacket (Yellow Jacket) /Vespula Spp. nests

(hives/colonies) [even those] that cannot be located

For use all season long in controlling Yellowjacket (Yellow Jacket) /Vespula Spp. nests (hives/colonies)

Season long control of yellowjacket nests For use in controlling yellowjacket nests Kills (Eliminates) hidden (unseen)

Yellowjacket (Yellow Jacket) /Vespula Spp.

nests (hives/colonies) [nearby]

Kills (Eliminates) [nearby] Yellowjacket (Yellow Jacket) /Vespula Spp. nests

(hives/colonies) you can't find (locate) (see)

Kills the [Yellowjacket (Yellow Jacket)

/Vespula Spp.] queen

[Quickly] Collapses the entire

Yellowjacket/yellow jacket /Vespula Spp.

nest (hive/colony)

Collapses the colony

Solves the problem of [annoying] foraging Yellowjackets

#### **Bait Transfer Claims**

Horizontal transfer [of the bait] kills (collapses) the entire nest (hive/colony) Foraging Yellowjackets (Yellow Jackets) transfer [take] the bait to the nest (hive/colony) effectively killing the nest (hive/colony) [including queens] The yellowjackets feed on the bait and then take the bait back to kill the others in the nest (hive/colony). There is no need to find or disturb the nest (hive/colony) to destroy it.

#### **Bait Attractiveness Claims**

Advanced / Special / Unique / Patented Yellowjacket (Yellow Jacket) Attractant [that] provides long range olfactory cues Attracts Yellowjackets (Yellow Jackets) then sends them back to their nest (hive) (colony) to kill the nest (hive) (colony) Honey Bees / Paper Wasps / Bald-faced Hornets / Mud Daubers will not feed on this bait - do not use this product for these insects.

Does not attract honey bees

Dual action – attracts and kills Yellowjackets
(Yellow Jackets)

### **Location Claims**

For Outdoor Living
Areas/Yards/Decks/Patios
Yard/Deck/Patio Yellowjacket (Yellow Jacket) Control

# Convenience Claims

Ideal (Best) for situations when the hive (nest) location is unknown or inaccessible. For hives or nests you can't find (locate) (see)

Clean, effective and easy to use

Clean, odorless bait

Easy to Use Station

[Convenient Station] can be placed or hung almost anywhere outside

Refillable Station can be used year after

Refills available

Can be placed on (hung from) (attached to) the deck/patio/outdoor tables /benches/ garbage (cans/bins/receptacles)/ house/ trees/ fences/outdoor lights/posts
Station protects the bait from small mammals/ pets / birds /other [non-target] animal(s) [species]
Can be used in combination with a Yellowjacket (Yellow Jacket) spray if the

## Honey Bee Information

hive (nest) (colony) is found

[This] Bait (formula) is not attractive to [pollinating] honey/bumble bees so it will not harm them

Does not attract nor impact [pollinating]

honey/bumble bees
Only attracts Yellowjackets (Yellow Jackets)

, not honey/bumble bees

Targeted formula will not attract honey

bees/pollinators

Honey Bees will not feed on bait Not attractive to honey bees

#### **Guarantee Claims**

Money back guarantee If for any reason you, [the consumer], are (is) not satisfied with this product, mail us your original proof of purchase to obtain a full refund of your purchase price.

# END OF OPTIONAL MARKETING CLAIMS

# MGK® Formula 2993

For use outdoors around areas such as: commercial, industrial, agricultural, residential, public, government and transportation equipment

**To control yellowjackets such as**: German yellowjacket (European wasp), common yellowjacket, Western yellowjacket, Eastern yellowjacket, hybrid yellowjacket, Southern yellowjacket, California yellowjacket, prairie yellowjacket, downy yellowjacket; that may also be referred to as Texas yellowjacket, ground wasp and meat bee.

# KEEP OUT OF REACH OF CHILDREN

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

Manufactured for **NACK**° 8810 Tenth Avenue North Minneapolis, MN 55427

EPA Reg. No. 1021-UNASSIGNED

EPA Est. No. 1021-MN-2

Net Contents: \_\_\_\_\_

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and wildlife. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not apply this product around electrical equipment due to the poss bility of shock hazard.

(MGK® (Brand Name) YELLOWJACKET BAIT effectively kills yellowjacket colonies. [MGK (Brand name) Yellowjacket Bait (Station) contains (an ingredient) (Fipronil) that kills yellowjackets continuously (nonstop). MGK (Brand name) Yellowjacket Bait (station) is so advanced that it is attractive to all [pestiferous (scavenger)] species of yellowjackets and kills the nest (colony) [including queens]. [MGK (Brand name) Yellowjacket Bait] may be placed outdoors where you have seen yellowjackets [foraging or flying]. MGK (Brand name) Yellowjacket Bait is effective even under high yellowjacket pressure.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product In a manner inconsistent with its labeling.

# READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

# **USE RESTRICTIONS:**

- Do not use without a bait station.
- Do not place the bait station within reach of small children or pets.

### **Use Recommendations:**

- Do not use other insecticides on or near the bait or bait station.
- Do not make applications immediately before, during or immediately after rainfall.
- Do not place stations within 20 feet of the yellowjacket nest (colony).
- Hang (Attach) the station to available trees or structures within area of protection.
- If no tree or structure is available in a given area, stakes or poles can be used for placement of bait stations.

#### **GENERAL USE DIRECTIONS:**

This product is for use outdoors in a bait station for the control of yellowjackets. Bait should be applied when yellowjackets are actively foraging, such as in the morning or during sunny warm conditions. It is not necessary to find or locate the yellowjacket nest (colony) for bait to be effective.

The number of stations used may vary, as long as no more than 90 grams of bait per acre are applied at any one time. For best results, place at least 8-10 stations per acre. For areas less than an acre, fewer stations can be used. [See Application Rate Table]

# **Bait Station Directions**

Stations should have opening from 16.5mm by 16.5mm to 24mm x 24mm.

This allows adequate room for yellowjacket entry and exit while not allowing non-target access.

# Option 1: Bottle Stations

Pre-drilled bottles may be available for purchase separately.



1) Push down on cover and twist counter clockwise to open.

Other graphic/illustration]

[Graphic/illustration]

2) Apply 3-9 grams of bait (each gram = 1/5 teaspoon) into station.
 3) Replace cover and turn clockwise to close. [Graphic/illustration]

- 4) If the station will be hung on or attached to an object, use the string/wire or double-sided adhesive pad. [Graphic/illustration]
- 5) When yellowjackets are no longer present in treatment area, remove stations.

# Option 2:

# **Easy Grip Station**

Prepare the station for placement as follows:

- 1) Remove station from package
- 2) Open station by squeezing rear handles together.
- 3) While maintaining pressure to keep station open, apply 3-9 grams (each gram = 1/5 teaspoon) of bait to inside wall of station.
- 4) If the station will be hung on or attached to an object, use the hanger provided. [Graphic/illustration]
- 5) When yellowjackets are no longer present in treatment area, remove stations.



# Option 3:

# **Orange Clamshell Station**

Prepare the station for placement as follows:

[Other Illustration]

1) Remove station from packaging and unfold/open it up. [Other Illustration]



2) Apply 3-9 grams (each gram = 1/5 teaspoon) of bait onto inside wall or bottom of station. [graphic or illustration]

[Other Illustration]



- 3) Snap station closed on top.
- 4) If the station will be hung on or attached to an object, use the enclosed S-hook hanger/string/wire or double-sided adhesive pad.
- 5) When yellowjackets are no longer present in treatment area, remove stations.

# Option 4: This option is to be used for packages that contain bait only, without station. Professional pest management professionals will reuse existing stations. Refill

Use bait only in a station specifically designed for yellowjackets:

[Other Illustration]

1) Apply 3-9 grams (each gram = 1/5 teaspoon) of bait onto inside wall or bottom of station. [graphic or illustration]

# [Other Illustration]

- 2) If the station will be hung on or attached to an object, use the enclosed S-hook hanger/string/wire or double-sided adhesive pad.
- 3) When yellowjackets are no longer present in treatment area, remove stations.

#### **APPLICATIONS TO LARGE OUTDOOR AREAS:**

Place at least 8-10 bait stations per acre (see application rate instructions below). Place stations approximately 70 feet apart from each other for general area-wide protection. If a yellowjacket nest (colony) location is identified, do not place a station within 20 feet of the nest (colony) because yellowjackets tend to forage farther away from their nest (colony). To ensure that bait stations are not lost in large areas, draw a diagram marking all bait station placements. Use the diagram to check bait stations and for collection of stations after control is achieved.

#### **APPLICATION RATES:**

Apply 3-9 grams (each gram = 1/5 teaspoon) of bait per station depending on the severity of the yellowjacket problem. Use at least 8-10 stations per acre. Apply no more than 90 grams of bait per acre (43,560 sq. ft.).

For best results, initially apply 3 grams of bait in each station. Before leaving the treatment area, it is recommended to check the early station placements. If the bait has been removed and there is still yellowjacket activity, reapply the full 9 grams of bait to each depleted station as long as no more than 90 grams of bait per acre are present.

## **Rebaiting Process**

For best results, check bait stations 3-4 days after bait placement but no longer than 7 days after placement. Add up to 9 grams of fresh bait to each depleted station as long as no more than 90 grams of bait per acre are present.

For the stations where no bait was taken, remove original bait and apply fresh bait to station. Move the stations to a new location within the treatment area where yellowjacket activity or bait removal have been observed.

#### [Grams of Bait

1 grams = 1/5 teaspoon

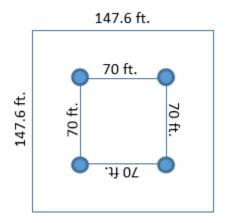
2 grams = 2/5 teaspoon

3 grams = 3/5 teaspoon

 $6 \text{ grams} = 1 \frac{1}{5} \text{ teaspoons}$ 

9 grams = 1 4/5 teaspoons

## [4 Station Placement Example for Half Acre



Dots represent bait stations.

Total coverage area is 21,780 sq. ft. for half-acre applications.

Place four stations roughly 70 feet from one another (a maximum of 9 grams per station for 4-station placement).]

#### Optional table for recommended application rate per station

[Application Rate Table

# Maximum Grams of Bait <u>per Station</u> Area in Square Feet (Acres)

Stations	4,356 (0.1)	10,890 (0.25)	14,519 (0.33)	21,780 (0.5)	29,040 (0.67)	32,670 (0.75)	43,560 (1)
1	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2	4.5	9.0	9.0	9.0	9.0	9.0	9.0
3	3.0	7.1	9.0	9.0	9.0	9.0	9.0
4		5.6	7.5	9.0	9.0	9.0	9.0
5		4.4	6.0	9.0	9.0	9.0	9.0
6		3.7	5.0	7.5	9.0	9.0	9.0
7		3.2	4.2	6.4	8.5	9.0	9.0
8			3.7	5.6	7.5	8.4	9.0
9			3.3	5.0	6.6	7.5	9.0
10			3.0	4.5	6.0	6.7	9.0

[Each gram of bait is roughly 1/5 of a teaspoon.]

# [Application Rate Table

Acres	Maximum Area Bait in grams	Maximum Number of Stations
0.1 (1/10)	9.0	3
0.25 (1/4)	22.5	7
0.33 (1/3)	30.0	10
0.5 (1/2)	45.0	15
0.66 (2/3)	60.0	20
0.75 (3/4)	67.5	22
1	90.0	30

[Each gram of bait is roughly 1/5 of a teaspoon.]

147.6 ft.

# [5 Station Placement Example for Half Acre

70 ft.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

#### **PESTICIDE STORGE:**

Store in a cool, dry place. Always store pesticides in the original container. Store away from food and pet food.

#### PESTICIDE DISPOSAL AND CONTAINER HANDLING:

Nonrefillable container. Do not reuse or refill this container.

If empty:

Place in trash or offer for recycling if available.

If partly filled:

Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

#### **OPTIONAL WARRANTY STATEMENTS:**

NOTICE: To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with directions.

[IMPORTANT: Read the entire Directions for Use, Conditions of Sale and Disclaimer of Warranties and Limitations of Liability before using this product.

**CONDITIONS OF SALE:** The directions for use of this product have been determined to be appropriate for the correct use of this product. This product has been tested under different environmental conditions similar to those that are ordinary and customary where the product is to be used. Insufficient control of pests or plant injury may result from the occurrence of extraordinary or unusual conditions, or from failure to follow label directions. In addition, failure to follow label directions may cause injury to animals, man and damage to the environment. Manufacturer and Seller offer, and the buyer accepts and uses, this product subject to the conditions that extraordinary or unusual environmental conditions, or failure to follow label directions are beyond the control of Manufacturer and Seller and are, therefore, the respons bility of the buyer.

#### LIMITED WARRANTY AND LIMITATION OF DAMAGES

Manufacturer and Seller warrant that this material conforms to the chemical description on the label. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER AND SELLER MAKE NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY, and no agent of Manufacturer or Seller is authorized to do so except in writing with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values, etc.]

## Marketing Claims

#### General

New (for 6 months)
Clean, Odorless Bait
Clean, Effective and Easy to Use
Easy to use
For use in commercial, industrial and
residential areas
Targeted formula will not attract honey
bees/pollinators
Not attractive to bees

#### **Efficacy**

Kills (Controls) Yellowjackets Effective bait for multiple species of Yellowjackets Effective bait for Yellowiackets Kills (Controls) Yellowjacket Nests (Colonies) in structures Kills (Controls) Yellowjacket Nests (Colonies) in trees Kills (Controls) Yellowjacket Nests (Colonies) in the ground Effective [localized] area-wide control of Yellowjackets Kills [Controls] Nests (Colonies) within a quarter acre of the station Kills [Controls] Nests (Colonies) in 2-3 days Kills queens in early season to help prevent colony establishment Targeted control of Yellowjacket Nests (Colonies) [even those] that cannot be located Helps (Can help) stop Yellowjackets before

they become a problem
For use all season long in controlling
Yellowjacket Nests (Colonies)
Kills hidden (unseen) Yellowjacket Nests
(Colonies) [nearby]
Kills [nearby] Yellowjacket Nests (Colonies)
you can't find (locate) (see)
Kills the [Yellowjacket] queen
[Quickly] Collapses the entire Yellowjacket
nest (colony)

#### Bait Transfer Claims

Horizontal transfer [of the bait] kills (collapses) the colony (nest)

Foraging Yellowjackets transfer (take) the bait to the (nest) (colony) effectively killing the nest (colony) [including queens]
The yellowjackets feed on the bait and then take the bait back to kill the others in the nest [colony]. There is no need to find or disturb the nest (colony) to destroy it.

#### **Palatability**

Advanced [Special] [Unique] [Patented] Yellowjacket attractant that provides long range olfactory cues

Attracts Yellowjackets which then return to their nest (colony) and share the bait that kills the colony

Paper Wasps, Bald-faced Hornets and Mud Daubers will not feed on this bait - do not use this product for these insects. Dual action – attracts and kills yellowjackets

#### **Location Claims**

For outdoor living areas/yards/decks/patios

#### Convenience Claims

Ideal [Best] for situations when the nest (colony) location is unknown or inaccessible For nests (colonies) you can't find (locate) (see)

Can be used in combination with a Yellowjacket spray if the nest (colony) is located

# Optional Claims When Package Includes A Station

Easy to Use Station

[Convenient] Station can be placed or hung almost anywhere

[Refillable] Station can be used year after year

Refills available

Can be placed on (hung from) (attached to) the deck/patio/outdoor tables /benches/ garbage cans (bins) (receptacles)/ house/ trees/ fences/outdoor lights/posts
Station protects the bait from small mammals/ pets / birds /other [non-target] animals (species)

# Optional Claims When Package Does Not Include A Station

Do not use without a station [with openings less than 16.5mm]

# Honey Bee Information

[This] Bait (formula) is not attractive to [pollinating] honey/bumble bees so it will not harm them

Does not attract or impact [pollinating] honey/bumble bees

Only attracts Yellowjackets, not honey/bumble bees Honey Bees will not feed on bait Not attractive to honey bees

#### **How it Works**

Bait is taken back and shared within the colony Active ingredient is transferred throughout

the colony